# Horticulture Tips
## December 2007

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University

## GARDEN TIPS FOR DECEMBER!

*David Hillock*

Lawn & Turf

- Remove leaves from cool-season grasses or mow with a mulching mower. (HLA-6420)
- Continue mowing cool-season lawns on a regular basis. (HLA-6420)
- Continue to control broadleaf weeds in well-established warm or cool-season lawns with a postemergent broadleaf weed killer. (HLA-6421)

Tree & Shrubs

- Select a freshly cut Christmas tree. Make a new cut prior to placing in tree stand. Add water daily.
- Live Christmas trees are a wise investment, as they become permanent additions to the landscape after the holidays.
- Light prunings of evergreens can be used for holiday decorations. Be careful with sap that can mar surfaces.

Flowers

- Apply winter mulch to protect rose bush bud unions and other perennials. Wait until after several early freezes or you will give insects a good place to winter.
- Poinsettias must have at least six hours of bright, indirect light daily. Keep plants away from drafts.

Fruits & Nuts

- Cover strawberry plants with a mulch about 3-4 inches thick if plants are prone to winter injury.
- Wait to prune fruit trees until late February or March.

General

- Keep all plants watered during dry conditions even though some may be dormant.
- Irrigate all plantings at least 24 hours before hard-freezing weather if soil is dry. (HLA-6404)
- Order gardening supplies for next season.
- Now is a great time to design and make structural improvements in your garden and landscape.
- Send for mail-order catalogs if you are not already on their mailing lists.
- Christmas gift ideas for the gardener might include tools, garden books, magazine subscriptions or membership to the Oklahoma Botanical Garden & Arboretum (OBGA).
- Clean and fill bird feeders.

- Make sure indoor plants are receiving enough light, or set up an indoor fluorescent plant light.
- Till garden plots without a cover crop to further expose garden pests to harsh winter conditions.
- Visit your county office to obtain gardening fact sheets for the new gardening season.
- Join a horticulture, plant or urban forestry society and support community "greening" or "beautification" projects.
- Review your garden records so you can correct past mistakes. Purchase a new gardening journal or calendar to keep the New Year's gardening records.

## GARDEN TIPS FOR JANUARY!

- If precipitation has been deficient (1" of snow = ~ 1/10" of water), water lawns, trees, and shrubs, especially broadleaf and narrowleaf evergreens. Double check moisture in protected or raised planters.
- Check on supplies of pesticides. Secure a copy of current recommendations and post them in a convenient place. Dilution and quantity tables are also useful.
- If you did not treat young pines for tip borers in November, do so before March.
- Check that gardening tools and equipment are in good repair—sharpen, paint and repair mowers, edgers, sprayers and dusters.
- Inspect your irrigation system and replace worn or broken parts.
- Control overwintering insects on deciduous trees or shrubs with dormant oil sprays applied when the temperature is above 40°F in late fall and winter. Do not use "dormant" oils on evergreens. (EPP-7306)
- A product containing glyphosate plus a postemergent broadleaf herbicide can be used on dormant bermudagrass in January or February when temperatures are above 50°F for winter weed control. (HLA-6421)

## Selecting and Caring for Your Christmas Tree

*David Hillock*

Selecting a fresh Christmas tree is important so that you can enjoy the tree longer and reduce the risk of a hazard.

Check for freshness by gently bending the needles on the tree. If the needles bend easily and don't break then the tree is pretty fresh. Another way to check for freshness is to lift the tree several inches off the ground and then drop it on the stump end; if an abundance of outer green needles fall off, the tree is not very fresh. Of course you can always visit a local "Choose & Cut" Christmas tree farm ensuring freshness of your tree.

Once you get your live tree home, it should be placed in water as soon as possible so it won't dry out. If you purchase a tree from a retail store, cut one inch off the bottom of the trunk to create a fresh cut that will absorb water. A tree purchased from a Choose & Cut farm should be placed in water as soon as you get home. Do not let the stump dry out or you will have to make a fresh cut.

A new tree will take up quite a bit of water the first few days so be sure to check the container or tree stand frequently and keep it full of water. Never let your tree get dry or it quickly becomes a hazard.

## Oklahoma State Pecan Show 2007

*Becky Carroll*

*Be sure to get the word out to everyone to enter their best pecans in the state show this year. There will not be any qualifying regional or district pecan shows this year. However, some county/area shows will be held at the discretion of the County Extension Educator. Growers are encouraged to participate in county shows if available. Winning entries from county shows will be sent to the state show. If no county/area show is available, growers may enter pecans directly by sending samples to Becky Carroll, 360 Ag Hall, OSU, Stillwater, OK 74078. Samples should arrive by January 11, 2008.*

Samples should be entered in a sealed plastic or paper bag. Label the bag on the outside and place a label inside the bag. Information should include exhibitors name and address, county, and type of pecan entered. Be sure to follow the guidelines that are listed below before sending entries.

A few helpful hints: Take the time to select pecans that are all the same cultivar, or same size and shape natives – don't send mixed pecans. Select uniform, clean, uncracked pecans. Presentation can make the difference between two very similar samples. Make sure to send two pounds of pecans in a labeled and sealed bag.

**General Rules and Guidelines**

- All entries must be grown in Oklahoma during the current season.
- Each entry shall consist of two pounds of nuts.
- Entries deemed unworthy by the judges will not compete for awards.
- Label each entry as to exhibitor's name, address and cultivar of nuts. If more than one native (seedling) pecan exhibit is made, identify the nuts from separate trees by numbers. Only one exhibit of each cultivar or native tree may be entered by one individual.
- Each entry will compete in one of the following 28 classes:
  1. Apache
  2. Barton
  3. Burkett
  4. Cheyenne
  5. Choctaw
  6. Comanche
  7. Graking
  8. Gratex
  9. Kanza
  10. Kiowa
  11. Mahan
  12. Maramec
  13. Mohawk
  14. Pawnee
  15. Peruque
  16. SanSaba Improved
  17. Schley (eastern)
  18. Shawnee
  19. Shoshoni
  20. Sioux
  21. Squirrels Delight
  22. Stuart
  23. Success
  24. Western
  25. Wichita
  26. Other Cultivars
  27. Large-Native (seedling)
  28. Small-Native (seedling)
- Each grower is allowed to participate at one county show of his or her choice.

- Each grower is allowed to enter one entry in each show class with the exception of Class 26 (Other Cultivars), Class 27 (Large-seedling) and Class 28 (Small-seedling).
- Each grower may enter one entry from each native (seedling) tree.
- Entries should be shipped or mailed to arrive at the show at least one day prior to the deadline.
- County pecan shows will not be affected by these rules and procedures.
- Only first and second place winners in each class of each county/area show will be eligible to compete in the State Pecan Show. Following each county show, eligible entries will be placed in cold storage, and judged before the Oklahoma Pecan Growers Annual Meeting. At that time, the winning entries will be displayed with awards and recognitions. All entries will become the property of the OPGA.
- First and second place winners in each class at the State Pecan Show will receive ribbons.
- State Pecan Show Special Awards – Plaques will be awarded for the largest pecan entry, the entry having the highest kernel percentage, the champion native and the best entry of the show.
- If a qualifying show is not available, growers may submit entries in accordance with these guidelines directly to the State Show. Entries in the state show must be received by January 11, 2008 at the following address:

  Oklahoma State University
  Department of Horticulture & LA
  Attn: Becky Carroll
  360 Ag Hall
  Stillwater, OK 74078

## Opportunities Abound for Fruit and Nut Education in 2008

*Eric T. Stafne*

The Grape Management Short Course and the Pecan Management Short Course will be offered in 2008 starting in February (pecan) and March (grape). These courses still have space available to anyone who is interested, but I especially encourage county educators to attend. There were four county educators who took the Pecan Management Short Course for graduate credit this past year. This option is open to any county educator who needs to fulfill coursework for graduate education requirements. Another county educator took the course and could use it to fulfill in-service training. The online Pecan Management Course is also available to county educators who don't have the time to attend the on location course.

The Viticulture Education Program is available for any county educator to participate in. This is an integrative program that combines coursework from OSU-Stillwater, OSU-Oklahoma City, and/or Tulsa Community College, as well as the short courses and workshops done through OCES. If anyone needs more information on this program please contact me. A county educator who deals a lot with grapes can go through this program and gain a substantial amount of knowledge.

Some grape-related workshops will also be offered throughout the year. I will offer a Grape Pruning workshop in late February or early March at the Cimarron Valley Research Station in Perkins. I also plan to have a workshop entitled Introduction to Interspecific Hybrid Grapes. Timing of that workshop is still being determined but may be held at a winery. If you know of a winery that is interested in hosting a workshop, please contact me – I would be happy to have a willing participant to help set up and advertise the workshop. If you are interested in attending any of these workshops contact me.

A fantastic opportunity is available for county educators this year at the Oklahoma-Arkansas Horticulture Industries Show. It will be held at Tulsa Community College on January 4 and 5. On the first day there will be a "Fruit School" with many different fruit crops being covered, including peaches, apples, pecans, strawberries, blackberries, and blueberries. The second day is devoted entirely to grapes. Of course there are other programs going on concurrently as well. Don't miss this opportunity!

I am always looking for willing participants to help host and present workshops, demonstrations, tailgate meetings, etc. If you believe there is sufficient interest out there in your county to do an educational program for any fruit crop or pecans we can set it up.

## Landscaping Around Ground-Level Electrical Facilities

*David Hillock*

Some landscapes have ground-level electrical facilities such as electrical transformers and pedestals. These objects can be quite the eye-soar because they don't integrate with the rest of the landscape.

Electrical service personnel would prefer not to have anything planted around these facilities, but realize homeowners would like to improve the overall appearance of their yards by landscaping around them. If a homeowner chooses to plant around these facilities there are some guidelines that electrical service employees have developed to make it easier to find and access these facilities when necessary.

Do's

- Place vegetation a minimum of three feet (3') away from the equipment's sides and a minimum of ten feet (10') away from the front of the access door.
- Plant vegetation far enough away so it reaches no closer than the minimum distance when it is full-grown.

Don'ts

- Do not place vegetation or materials, such as rocks or timbers, within ten feet (10') of the access door.
- Do not build a structure over or around the electrical equipment, and do not build something that encloses it.
- Do not use vines or plants with spiny leaves near the electrical equipment.

The Public Service Company of Oklahoma (PSO) has created a brochure on the topic; if you would like a copy of the brochure or if you have any questions or need more information you can call the PSO's Infoline at 1-877-367-6815.

# Rain Gardens

*David Hillock*

Rain gardens are essentially bioretention systems designed to manage stormwater on a site and keep it out of the sewer system. They are designed with loose, deep soils that absorb water quickly and filter water pollutants.

A rain garden can be a beautiful feature of the landscape if designed properly. Their size and shape can vary and fit into just about any situation.

Proper construction is important for a successful rain garden. Seek contractors that have experience in designing and installing rain gardens. The goal is to allow stormwater to soak quickly into the soil, not to create a pond.

Replacing the existing soil with a loose soil mix to a depth that insures filtration is essential. In heavy clay soils, research and experience indicate that a mixture of sand and compost works well. Additional drainage infrastructure may be needed to insure proper infiltration and prevent soil compaction, saturation and standing water.

A rain garden should be located in the right place. Down-slope from structures and up-slope from storm drain infrastructures and lakes and streams. Re-grading to ensure stormwater is draining into the rain garden may be necessary.

The size of the garden is also important. Do not guess how much water may be going into the rain garden. Free tools on the internet are available to help calculate the amount of rain draining to an area (**www.raingardens.org/docs/bioretention_tools.pdf**).

Rain gardens should be an attractive feature of the landscape. Landscapers can help create a planting plan that is beautiful and functional. The garden should feature easy-care plants that are native to your region and will tolerate the moisture levels present in a rain garden. Do not use aggressive species that will require frequent division or removal.

Like any garden, the rain garden will need to be maintained. Water appropriately until plants are established. After plants are established, they may only need watering during a drought. Weed on a regular basis and make sure those tending to the garden recognize the difference between the native plants used and weeds. Mulch will help reduce weeding and soil compaction helping the plants to become established. Fertilizer should not be necessary; native plants should thrive in the prepared soil. Avoid using pesticides.

For more information about rain gardens visit www.raingardens.org, http://www.lowimpactdevelopment.org/raingarden_design/ or http://www.mninter.net/~stack/rain/.

# Some Things to Consider When Using Plastic Mulch & Drip Irrigation

*Lynn Brandenberger & Warren Roberts*

As with any system, having it work properly is really in the details. Our first concern is deciding what types of equipment are required for the proper application of plastic mulch and drip irrigation. Of primary concern is having soil in a clod-free condition similar to what you would need for seeding. Large clods are a serious problem when applying plastic mulch, first because of the potential for tearing holes in the plastic, second because large clods will prevent good soil to plastic contact thus reducing heat-gain into the soil during the early spring. A rototiller-rotovator is important for soil prep, particularly if your soil has a tendency to be cloddy. Another important piece of equipment is a mulch-bedder-layer. A good machine will form a uniform bed, open furrows on both sides of the bed to tuck the plastic into and then will unroll the plastic, stretch it and cover the edges of the plastic with soil. Proper adjustment of the bedder-layer is important to provide a good stretch on the plastic and to cover the edges adequately. If this isn't done, disaster i.e. the mulch blowing loose can be a very costly and time consuming problem. Mulch applicators can also be purchased that will apply soil fumigants and drip tape for irrigation. Last, both transplanters and seeding equipment can be purchased to plant through plastic covered soil.

Applying plastic mulch correctly is essential to allow the producer to maximize the advantages of using mulch and to ensure that the plastic remains in the field and isn't lost to the wind. The following check list is a great place to start for proper mulch application:

- *Clean field without crop or weed debris*
- *Clod free soil*
- *Well pulverized (raised or flat) seed beds*
- *Good plastic to soil contact*
- *Warm soil / air temperature (> 75°F)*
- *Tight stretch of plastic across beds*
- *Good soil mulch anchor on ends & sides*

Just remember that a poor job done applying mulch can cost you a lot of money and will negate many of the advantages that you are working toward. The following are some of the problems that can occur:

- *Edge of mulch can become loose due to a poor job of covering the edges*
- *Mulch can billow-up in warm temps due to applying it in temps <75°F*
- *Just do your homework:*
  - *Good soil prep*
  - *Watch temps at application*
  - *Adjust the mulch layer properly*

Plastic mulches come in a variety of types, many of their advantages have been mentioned by Dr. Warren in the previous discussion. Suffice it to say that there are many types of plastic mulch

and different types are utilized in the field for different reasons. Here are some types and the potential reasons for using them.

- Clear, Black, & IRT for heating
- White, Silver for cooling
- Red, blue, yellow, gray, orange etc. have distinct optical characteristics
- Silver Mulches are often used as an insect deterrent

So, what are some of the problems or pitfalls of using plasticulture for producing high value crops? To begin with, when row tunnels are used to protect the crop from cold you need to recognize that it will be difficult or nearly impossible for pollinating insects to do their job if the row cover isn't removed in a timely fashion. Bees and other pollinators will have a difficult time pollinating if the cover is on, so be certain to make provisions to remove it prior to the time that these insects will be needed for fruit set. Another problem that can occur from row covers is in the application of pesticide sprays to the crop. The cover will make it nearly impossible to obtain good coverage of the crop with an insecticide or fungicide.

Plastic mulch is a great asset in controlling many broadleaf and grass weeds in a production system, but plastic mulch will not control nutsedge. In fact it can complicate nutsedge control because weeding nutsedge from plastic covered soil must be done by hand-pulling weeds from the mulch. Not much fun and it costs a lot of money. If you know that nutsedge is a problem in the field that you are considering using mulch on, be certain to either control the nutsedge prior to applying the mulch or better yet if possible, select a different field for mulch use.

Cucurbits in particular those that have a vining growth habit can have some unique problems when grown on plastic covered soil. Due to the lack of soil around the vine, the plant will have a difficult time anchoring itself prior to growing past the mulch and onto bare soil. This makes the vine susceptible to the "Wiper Effect" where the vine moves back and forth across the surface of the plastic. This damages the conductive tissues of the vine and can even result in the vine breaking off at the crown. Not something the producer wants to happen. If you produce in a windy area, be sure to provide some type of windbreak to prevent this from occurring.

Drip irrigation tape does a great job of applying water directly to the soil surface near the plant's root system. Unfortunately drip tape can leak so be aware of this and take steps to prevent or correct this problem. Drip tape can leak due to loose connections, cuts to the tape during installation and planting, bird and insect damage and even occasional chewing by thirsty coyotes.

One issue that many don't consider is the removal and disposal of plastic mulch and drip tape after the production season. Several years ago the industry attempted to solve this situation through the development of photo-degradable mulches, but due to variation in production locations and environments, this never worked very well. After researching the problem, we recommend approaching the problem from a different direction, that of using mulches that maintain their integrity and are more easily removed from the field. Think of it this way, would you rather remove 1,000 pieces or 50,000 pieces of used plastic from your field? Humm……, tough question. The other related issue is disposing of the mulch after it has been removed from

the field. Be certain that you determine what local regulations are regarding disposal and follow them. Some suppliers of plastic may help you in disposal i.e. bailing, recycling, harvesting energy from it for an electrical generator, etc. Just be sure to look into your options. Here are a few points to remember:

- Removal after season
  - Clean field & remove ASAP
  - Time required varies
    - Due to mulch integrity
  - Cost can vary from 50 to 150 dollars/acre
- Disposal
  - Look into local regulations
  - Recycling?
    - Lots of soil & crop debris
    - Some plastic Co's may help
  - Landfill**?**

Costs for plastic mulch are obvious, right? Not necessarily so. The obvious are the costs associated with purchasing the mulch, applying it, irrigation equipment, application equipment etc., but wait, there's more. Don't forget the cost of removal and disposal. These are real costs in time and labor and must be considered. Last, but certainly not least are the increased costs of managing a plasticulture production system. If you've never produced crops using plasticulture realize this: The learning curve is steep, expensive and must be mastered if you hope to realize a good return for the added cost of using plastic. Your time, your money, your efforts must increase if you are to see the advantages materialize that you are hoping for. My advice is to realize this and start small so the lessons that you learn on a small scale can be applied to your operation on a larger scale.

- In summary Plasticulture can:
  - Extend seasons for high value crops
  - Modify crop environments
  - Conserve water
  - Potentially generate more income
  - Cost a lot

## Upcoming Horticulture Events

**Holly-Day at the Garden**
**December 8, 2007, 3:30 to 6:30 p.m., OSU Botanical Garden, Stillwater, OK**

Come enjoy the beauty of the gardens with twinkling lights during the holiday season with Winter Beauty in the Garden and Youth Walk tours. There will be Cooking, Wreath Making, and Indoor Decoration demonstrations along with activities for the youth making pine cone bird

feeders, pine cone ornaments and cookie decorating. There will be caroling and hot chocolate available, and families can construct their own holiday wreath ($25) or swag ($15).

**Oklahoma Cucurbit Vegetable Production and Marketing Meeting**
**December 13, 2007, Grady County Fairgrounds, Chickasha, OK**

This year's program will focus on developments with the Oklahoma Farm to School program and the new opportunities for fruit and vegetable growers. This program is for gardeners and farmers alike; squash, pumpkin, watermelon, cantaloupe, and cucumber are all favorites in Oklahoma. For more information contact **Jim Shrefler** at 580-889-7343.

**Horticulture Industries Show**
**January 4-5, 2008, Tulsa Community College, Northeast Campus, Tulsa, OK**

For information, please visit http://www.hortla.okstate.edu/his.htm or contact Donna Dollins at 405-744-6460, donna.dollins@okstate.edu.

**Turf and Landscape Field Day**
**September 17, 2008, OSU Botanical Garden, Stillwater, OK**

For more information about upcoming events, please contact Stephanie Larimer at 405-744-5404 or stephanie.larimer@okstate.edu.

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